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TESTS FOR DETERMINING PATENT VALIDITY—A NEW APPROACH BY THE NINTH CIRCUIT?

Perhaps no specialized area of the law has been the subject of controversy longer than the requirements which have been imposed by the courts for upholding the validity of patents issued by the Patent Office. The controversy has largely centered on what criteria should be utilized by the courts in determining whether there is a patentable invention; however, there is one general point of agreement among the authorities—there has never been a clear-cut line of demarcation between what is and what is not a patentable invention.[1] On the one hand, there are the advocates who urge the courts to apply a liberal definition of "patentable invention" and to thus uphold the validity of patents issued by the Patent Office. On the other hand, there are advocates who urge the courts to apply a strict definition of "patentable invention," which indicates dissatisfaction with the criteria employed by the Patent Office in issuing patents.[2] While the rhetoric of the distinguished spokesmen for both sides has changed somewhat since the original Patent Act in 1790, the primary issue remains the same—a basic policy conflict as to whether society is benefited more by the issuance of patents as a means of encouraging the promotion of technology, or whether the monopolistic character of the patent outweighs the benefits to society and thus requires that patents be granted in only exigent circumstances.

A review of relatively recent cases indicates that both the Supreme Court and the lower courts have adopted a restrictive view towards the granting of patents,[3] and patent validity has thus been upheld only rarely. The Patent Office has historically adopted a more liberal view as to patentability and has issued patents whenever the invention was found to be new and useful.

The Supreme Court has enunciated several subjective tests to be utilized in determining the patentability of inventions; however, the use of these tests by the courts has yielded a common result—most patents have been found invalid. Recent decisions in the Ninth Circuit highlight the fact that the courts have generally adopted a stringent

1. *See generally* Posnack, *The Judicial Erosion of Our Patent System: A Threat to Inventive Initiative*, 37 A.B.A.J. 357, 360 (1951).

2. See text accompanying notes 44 & 48 *infra*.

3. See text accompanying notes 47 & 96 *infra*.

policy regarding patent validity. The incidence of cases in which the Ninth Circuit has ruled that the patent issued by the Patent Office was invalid has risen from 58 percent in 1963 to 90 percent for the past two years.[4] The court has consistently followed a restrictive policy in applying the subjective tests for patentability enunciated by the Supreme Court, and has demonstrated a particularly wary approach toward patents which are subjectively deemed to be merely "combinations of old, known elements." Recently, however, the Ninth Circuit appears to have veered away from the position taken in prior cases involving "combination patents" and in the recent case of *Reeves Instrument Corp. v. Beckman Instruments, Inc.*[5] upheld the validity of the patent on the basis of objective tests which had been largely disregarded by the court in the past. This decision may represent the vanguard for a shift in policy by the Ninth Circuit towards a more liberal view regarding patents.

This note will briefly review the evolution of patent law in the United States and the development of the various tests for determining patentability which have been enunciated by the Supreme Court. Recent patent cases decided by the Ninth Circuit will be briefly reviewed in order to provide the necessary backdrop for an analysis of the shift in the approach of the court as illustrated by *Reeves*. The note will conclude that the policy of the Ninth Circuit regarding patent validity remains largely unsettled, and the precedential value of *Reeves*, if any, will be determined in subsequent cases brought before the court.

Development of the Concept of Patentability

The Constitution

The principle of granting a patent for inventions was quickly recognized by the delegates at the Constitutional Convention.[6] There was little opposition by the delegates to the principle that patents should be issued since many of the delegates were themselves inventors, and it was widely felt that technological improvement incident to patentable ideas would benefit society while affording the inventor some protection.[7] Thus, the power to award patents was constitutionally granted to Congress:[8]

4. *Compare* R. Dearborn & R. Boal, *Adjudication by Circuits and Arts Involved,* in THE ENCYCLOPEDIA OF PATENT PRACTICE AND INVENTION MANAGEMENT 24 (R. Calvert ed. 1964) *with* cases cited in note 122 *infra.*

5. 444 F.2d 263 (9th Cir. 1971).

6. Garvey, *History of United States Patents and Present Day Norm of Patentable Inventions,* 5 MIAMI L.Q. 541 (1951) [hereinafter cited as Garvey].

7. *Id.*

8. U.S. CONST. art. I, § 8, cl. 8. It should be noted that this clause incorporates both patents and copyrights.

> The Congress shall have Power . . . to promote the Progress of . . . [the] useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their respective . . . Discoveries.[9]

Immediately apparent is the fact that the constitutional provisions do not contain any specific criteria for determining the type of "discovery" for which a patent should be issued.[10] Instead the broad language in the Constitution states only that patents are to be granted to "inventors" for "discoveries."[11] The present day policy conflict has its roots in this clause—Congress is to promote the useful arts by granting exclusive rights to inventors.

Patent Laws

Congress, acting under the authority of art. 1, § 8, cl. 8, enacted the first patent act in 1790[12]—"[*an*] *act to promote the progress of useful arts.*" This act established the petitioning procedure for a patent[13] and provided that a patent would be granted if

> [the petitioner has] . . . invented or discovered any useful art, manufacture, engine, machine or device, or any improvement therein not before known or used . . . .[14]

Subsequent to the Patent Act of 1790, there was dissatisfaction with the rigidity[15] of the "Patent Board"[16] in granting patents, which ultimately resulted in the enactment of the Patent Act of 1793.[17] The "Patent Board" was supplanted by a clerical function, and inventors requesting a patent were merely required to file a petition with the secretary of state. The act empowered the secretary to issue patents without examination. The Act of 1793 was thus obviously intended

9. *Id.*

10. Lutz, *The Constitution v. The Supreme Court Re: Patents for Inventions,* 13 U. PITT. L. REV. 449 ,451-52 (1952) [hereinafter cited as Lutz].

11. *Id.* at 451. *See* Seidel, *The Constitution and a Standard of Patentability,* 48 J. PAT. OFF. SOC'Y 5 (1966) [hereinafter cited as Seidel]. "The standard for . . . an invention would seem to be a political matter determinable from time to time by the legislature, to obtain optimum social usefulness of the patent system."

12. Act of April 10, 1790, ch. 7, 1 Stat. 109.

13. *Id.* § 1, at 109-110.

14. *Id.* at 110.

15. Dissatisfaction resulted because the Patent Board could not devote enough time to patent determination and because there was no appeal of the board's decision. *See generally* Garvey, *supra* note 6, at 541; Federico, *Commentary on the New Patent Act* preface to 35 U.S.C.A. §§ 1 to 110 (1954). [hereinafter cited as Federico]. "While the Board . . . was quite favorable to the granting of patents, . . . the other duties of members of this Board . . . made it impossible for them to devote much time to this work . . ." *Id.* at 4.

16. A patent would only be issued if a board composed of the secretary of state, the secretary of war and the attorney general, or any two of them deemed the invention sufficiently useful and important. *Id.*

17. Act of Feb. 21, 1793, ch. 11, 1 Stat. 318.

by Congress to encourage inventors to exert their inventive genius in order to promote technological progress. Since there were few, if any, restrictions on patent issuance, no attempt was made in the act to furnish any definition of patentability.

Following the Act of 1793, Congress enacted numerous amendments and revisions of the patent laws,[18] and in the Patent Act of 1870,[19] Congress revised and consolidated all the patent laws then effective in the United States.[20] The Act of 1870, though amended numerous times since its enactment,[21] remained the law on patents until the Patent Act of 1952. The Act of 1870[22] basically adhered to the negative rules of the Act of 1790—"improvement not before known or used"—and did not attempt any definition of patentability.

Before discussing the latest patent act—The Patent Act of 1952—it may be appropriate to review certain landmark Supreme Court decisions regarding the interpretation of the term "patentability" under the patent laws discussed thus far. As has been discussed, neither the Constitution nor the patent laws attempted to specify or enumerate any standards or criteria of patentability. At most, the statutes provided some negative rules for determining patentability.[23] To fill the void created by the lack of statutory policies as to patentability, the courts evolved certain principles on a case by case basis.[24] The earliest cases reaching the courts involved patent infringement and the courts generally applied a liberal standard[25] in upholding the validity of the patents—requiring only the statutory prerequisites of utility[26] and novelty.[27] Of course, by limiting its review to a determination of whether the item in question was new and useful, the courts had avoided the issue of the degree of originality which was necessary to warrant the issuance of a patent.[28] The Supreme Court first considered the degree of

18. *See, e.g.*, Federico, *supra* note 15, at 4-5; Garvey, *supra* note 6, at 542-43.

19. Act of July 8, 1870, ch. 230, 16 Stat. 198.

20. Federico, *supra* note 15, at 5.

21. *Id.*

22. Act of July 8, 1870, ch. 230, § 24 at 201, 16 Stat. 198.

23. See text accompanying notes 5 & 16 *supra*. *See* Seidel, *supra* note 11, at 9-17. Mr. Seidel addresses the question of whether the Constitution enunciates any standard for patentable invention. He concludes there is no standard enunciated. *Id.* at 16.

24. Seidel, *supra* note 11, at 37.

25. *See, e.g.*, Grant v. Raymond, 31 U.S. (6 Pet.) 218, 242-44 (1832) (in effecting the purpose of the law, validity of patent depends on whether the machine was known or used before the application for the patent); Pennock & Sellers v. Dialogue, 27 U.S. (2 Pet.) 1, 18-19 (1829) (patent grant is valid if the invention was "not known or used by others").

26. Seidel, *supra* note 11, at 11.

27. *Id.* at 31.

28. *Id.* at 30. "It was not until about 1850 that the judges began to take a

originality necessary for patent issuance in *Hotchkiss v. Greenwood*[29] decided in 1850.

Hotchkiss v. Greenwood—The "Skilled Mechanic" Test

Hotchkiss is viewed as a landmark decision in patent law because of the standard of patentability established by the Supreme Court which went beyond the old test of novelty and utility as the prerequisites for the issuance of a patent. The patent involved in *Hotchkiss* was a porcelain door knob attached to a metal shank. The Court specifically found that the concept of a doorknob was not new; nor was the metal shank used in the design of the knob, nor the method of fastening them together; each of the components of the alleged invention was well known and in common use.[30] The only improvement over the known prior art insofar as doorknobs was concerned was the use of porcelain in making the knob, instead of other materials, such as wood, which had been used in the past.[31] The Court upheld the instruction of the lower court which had charged the jury[32] that if they found no more ingenuity or skill utilized in the particular device than that of the ordinary skilled mechanic, the patent was void:

> Now if the foregoing view of the improvement claimed in this patent be correct, it is quite apparent that there was no error in the submission of the questions presented at the trial to the jury; for unless more ingenuity and skill in applying the old method of fastening the shank and the knob were required in the application of it to the clay or porcelain knob than were possessed by an ordinary mechanic acquainted with the business, there was an absence of that degree of skill and ingenuity which constitute essential elements of every invention. In other words, the improvement is the work of the skillful mechanic, not that of the inventor.[33]

The Court in *Hotchkiss* thus added a *judicial* requirement for patentability in addition to the statutory requirements of utility and novelty—an operative test requiring the device to evidence more than the skill possessed by a mechanic experienced in the field in order to be patentable.[34] The courts seized upon the so called "skilled mechanic" test to implement a restrictive policy in the issuance of patents, and the interpretation of *Hotchkiss* has played a large part in the balancing of the

more active hand in shaping . . . the development of rules for determining the presence or absence of invention. . . ." Lutz, *supra* note 10, at 453-54.

29. 52 U.S. (11 How.) 248 (1850).

30. *Id.* at 264.

31. *Id.* at 265.

32. The issue of invention was considered a question of fact for the jury. Seidel, *supra* note 11, at 34.

33. 52 U.S. (11 How.) at 266.

34. *See generally* 34 GEO. WASH. L. REV. 802 (1966).

divergent policies of promoting technology versus the grant of a monopoly.[35]

A policy shift toward a stricter standard of patentability paralleled the court's growing dislike of monopolistic powers. The restrictive market effects of cross-licensing, price fixing, and other modes of market control often resulted in unlawful extensions of the patent right.[36] During this period, the term "patent monopoly" wed the patent to prejudice,[37] especially when considered in the light of the public demand for Congress to deal with the powerful trusts of the country, which finally resulted in the Sherman Act.[38] Additionally, technological progress had been pushed to the point where advancement was often considered the result of trial and error rather than discovery or invention, and the courts thus felt the grant of the patent monopoly was no longer justified since most of the advances would be produced by research efforts of industrial groups anyway.[39]

The increasing severity with which the courts viewed patentability[40] culminated with the standards for patentability enunciated by the Supreme Court in *Cuno Engineering Corp. v. Automatic Devices Corp.*[41]

Cuno Engineering Corp. v. Automatic Devices Corp.—The "Flash of Genius" Test

In *Cuno* a suit for patent infringement was brought on a patent for a wireless cigarette lighter of the type commonly found on the dashboard of the present day automobile. The device for which the patent had been issued provided a means for holding the lighter plug in place until the heating coil was brought to the desired temperature. The device incorporated an automatic thermostatic control for the heating element with an automatic release that returned the plug to

35. *Id.* at 802-03.

36. *See generally* Arnold, *The Abuse of Patents,* 24 J. PAT. OFF. SOC'Y 531 (1942). "We need a legislative provision which prevents the owner of a patent from using it as an instrument of business policy to dominate industry and destroy independent enterprise." *Id.* at 543.

37. Rich, *The Relation between Patent Practices and the Anti-Monopoly Laws,* 24 J. PAT. OFF. SOC'Y 85, 89 (1942). "Ask the average man whether monopoly is bad and he will undoubtedly tell you it is." *Id.*

38. Act of July 2, 1890, ch. 647, 26 Stat. 209-10.

39. *See generally* Frank, *Thoughts on Patents,* 24 J. PAT. OFF. SOC'Y 808, 812-14 (1942).

40. "However, from the late 1920's . . . the Supreme Court . . . [and] the lower courts, applied an increasingly stricter standard of patentability or at least applied the *Hotchkiss* standard with noticeably greater severity." Note, *The Standard of Patentability—Interpretation of Section 103 of the Patent Act,* 63 COLUM. L. REV. 306, 307 (1963). [hereinafter cited as *The Standard of Patentability*].

41. 314 U.S. 84 (1941).

the open-circuit position after the proper temperature was achieved. The prior art included wireless removable automobile lighter plugs and thermostatically controlled heating units. However, the lighter plug in *Cuno* eliminated the necessity of having to continuously apply pressure by hand in pushing the plug against the heating unit, and also eliminated the requirement of constant attention to assure that there was no overheating or burning out of the heating coil. The court found that both the wireless lighter plug and thermostatically controlled heating units were disclosed by the prior art, and held:

> We may concede that the functions performed . . . were new and useful. But that does not necessarily make the device patentable . . . . That is to say, the new device, however useful it may be, must reveal the flash of creative genius, not merely the skill of the calling.[42]

The conflicting policy views as to patentability were mentioned by Justice Douglas in the opinion, and he indicated a definite shift towards a reluctant attitude in tolerating the monopoly created by a patent, by stating:

> Strict application of [the "skilled mechanic"] test is necessary lest in the constant demand for new appliances the heavy hand of tribute be laid on each slight technological advance in art.[43]

Cuno has been interpreted by most authorities as establishing a judicially evolved higher standard of patentability.[44] The immediate reaction of the lower courts to the *Cuno* decision was that the Supreme Court had established a more restrictive standard for patentability. In *Picard v. United Aircraft Corp.*[45] Judge Learned Hand acknowledged the new stricter trend:

> We cannot, moreover, ignore the fact that the Supreme Court, whose word is final, has for a decade or more shown an increasing disposition to raise the standard of originality necessary for a patent.[46]

In the concurring opinion, Judge Frank specifically cited the ingenuity test of *Cuno*.[47] Other courts, however, refused to find that the standard of patentable invention had been made more strict by *Cuno*. In

42. *Id.* at 90-91.

43. *Id.* at 92.

44. *See, e.g.*, Seidel, *supra* note 11 at 39; *The Standard of Patentability, supra* note 40, at 308; 34 GEO. WASH. L. REV. 802, 803 (1966). *But see* Nielsen, *Flash of Genius,* 24 J. PAT. OFF. SOC'Y 371 (1942).

45. 128 F.2d 632 (2d Cir. 1942).

46. *Id.* at 636. Other cases supporting a new test include, Potts v. Coe, 145 F.2d 27, 31 (D.C. Cir. 1944); Anderson Co. v. Lion Products Co., 127 F.2d 454, 457 (1st Cir. 1942); Arcadia Knitting Mills, Inc. v. Princeton Knitting Mills, Inc., 124 F.2d 330, 330-31 (2d Cir. 1941).

47. 128 F.2d at 639.

Brown & Sharpe Manufacturing Co. v. Kar Engineering Co.[48] the First Circuit found evidence in the *Cuno* case that the " 'flash of creative genius' was not to be construed literally or applied generally."[49] Instead, the court noted language in *Cuno* that "establishes conclusively that the Supreme Court has wrought no change in the classic test ["skilled mechanic"] for invention . . . ."[50] Thus, whether *Cuno* raised the standard of patentable invention was certainly unclear; however, it is interesting to note that subsequent Supreme Court decisions did not apply the "flash of genius" test, even though adhering to a strict standard of patentability.[51]

The vagueness surrounding the "flash of genius" test was shortly compounded by the Supreme Court in *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*[52] Without specifically mentioning the "flash of genius" test, the Court announced a new subjective standard for determining patentability.

A & P—The "Synergistic" Test

The patent in *Great Atlantic & Pacific Tea Co. (A & P)* was on a mechanically operated grocery counter that is today found in almost every supermarket. The patent consisted of a counter extended from the cash register and a movable frame upon which the merchandise was to be deposited by the customer for movement to the clerk stationed at the register. The patentee did not allege he had discovered the counter nor the movable rack, but noted that his patented combination of these known elements, satisfied a problem faced by all self-service stores. The Court reviewed the separate components of the alleged "invention" and noted:

> This counter does what a store counter always has done—it supports merchandise . . . . The three-sided rack will draw or push goods put within it from one place to another—just what any such rack would do . . . and the guide rails keep it from falling or sliding off from the counter, as guide rails have ever done.[53]

The lower court had sustained the validity of the patent based on a detailed analysis of the prior art[54]—noting that the simplicity of the device was deceiving since numerous efforts utilizing these same elements

48. 154 F.2d 48 (1st Cir. 1946).

49. *Id.* at 51.

50. *Id.* at 52; *accord, e.g., In re* Shortell, 142 F.2d 292, 295-96 (C.C.P.A. 1944); Chicago Steel Foundry Co. v. Burnside Steel Foundry Co., 132 F.2d 812, 818-19 (7th Cir. 1943).

51. *See* 34 GEO. WASH. L. REV. 802, 803 (1966).

52. 340 U.S. 147 (1950).

53. *Id.* at 152.

54. 179 F.2d 636 (6th Cir. 1950), *aff'g* Bradley v. Great Atlantic & Pacific Tea Co., 78 F. Supp. 388 (E.D. Mich. 1948).

to solve the bottleneck presented by the checkout counter in self-service stores had failed.[55] The lower court concluded that the counter represented a new and useful combination which met the requirements for issuance of a patent.[56]

The Supreme Court was not persuaded by the numerous prior unsuccessful efforts at solving the problem, nor by the immediate commercial success of the counter combination. Rather, the Court chose to consider each of the separate components individually, rather than as a combination, and since each of the components was well known in prior art, held:

> This case is *wanting in any unusual or surprising consequences* from the unification of the elements here concerned, and there is nothing to indicate that the lower courts scrutinized the claims in the light of this rather severe test . . . . [O]nly when the whole in some way exceeds the sum of its parts is the accumulation of old devices patentable.[57]

Thus, though the Court did not specifically mention the *Cuno*, "flash of genius" test, the strict standard of *Cuno* was manifested in terms of a synergistic test.

The portion of the *A & P* decision that evoked the most comment from commentators in the patent field was the concurring opinion of Mr. Justice Douglas.[58] Justice Douglas enunciated his view that patents should be issued only in the exceptional cases:

> Every patent is a grant of a privilege of exacting tolls from the public. The Framers plainly did not want those monopolies freely granted. The invention, to justify a patent, had to serve the ends of science—to push back the frontiers of chemistry, physics and the like; to make a distinctive contribution to scientific knowledge. That is why through the years the opinions of the Court commonly have taken "inventive genius" as the test.[59]

Justice Douglas' "inventive genius" test would require a synergistic result of two plus two equals five before a patent would be tolerated. The *Hotchkiss* "skilled mechanic" test would not be sufficient since this test would tolerate a patent when an increment of skill exceeding that of an ordinary mechanic was displayed.[60] In effect, Justice Douglas appeared to follow the general strict tenor of his *Cuno* opinion, thus raising doubts as to the viability of the "skilled mechanic" test of *Hotchkiss*.[61]

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55. *Id.* at 638-39.
56. *Id.* at 638; 78 F. Supp. at 392.
57. 340 U.S. at 152 (emphasis added).
58. *The Standard of Patentability, supra* note 40, at 309.
59. 340 U.S. at 154.
60. See text accompanying note 33 *supra.*
61. *See generally* Gerhardt, *Patent Policy and Invention*, 34 J. PAT. OFF. SOC'Y 877, 882 (1952).

A & P has generally been interpreted as establishing the strict view that unless inventions are great "scientific advances," patents should not be issued,[62] and the term "scientific advances" would appear to require a synergistic result as a prerequisite to patentability. The *A & P* decision reflects the completed swing by the Court from its early benevolent attitude to a very restrictive interpretation of patentability.

In the case by case shifting of the standard of patentability toward the restrictive view espoused in *A & P*, the court evolved tests became more subjective and vague. Thus, the patent procedure which was originally envisioned as a vehicle to promote the useful arts was detoured by a growing judicial disfavor for this grant of monopolistic power. The growing inconsistencies in the application of these Court developed tests prompted Congress to attempt to establish a more objective test.

> Because the statutory standards of patentability have generally been terse and ambiguous, amplification of their meaning affords considerable opportunity for judicial policy-making. In fact, prior to 1952 the "law" applied in a particular case often seemed to depend as much upon the judge's philosophy of the patent system as upon logical inference from an accepted legal standard.[63]

Against this background, the next major step was taken in the evolving concept of patentability—the Patent Act of 1952.[64]

Patent Act of 1952—The "Obviousness" Test

This act is the most recent congressional revision of the patent laws and is considered by most commentators who are intimately involved in the patent process, as reflecting a favorable congressional attitude toward patents.[65] The act contains a trio of sections[66] (sections 101, 102 and 103) which enumerate the statutory prerequisites for patentability—a patent is to be issued if the device is useful,[67] and novel[68] and non-obvious.[69] The major change in the evolving concept of patentability is the requirement of nonobviousness which was included for the first time in a patent act. Section 103 of the act provides:

62. Brand, *If No Patent Laws?*, 34 J. PAT. OFF. SOC'Y 449, 451 (1952).

63. *The Standard of Patentability*, *supra* note 40, at 306-07.

64. Ch. 950, 66 Stat. 792 (1952), *codified in* 35 U.S.C. §§ 1-293 (1970).

65. *See, e.g.*, Seidel, *supra* note 11, at 6; *The Standard of Patentability*, *supra* note 40, at 312; Federico, *supra* note 15, at 22. "[I]t is believed that some modification was intended in the direction of moderating the extreme degrees of strictness exhibited by a number of judicial opinions . . . that is, that some change of attitude more favorable to patents was hoped for." *Id.*

66. 35 U.S.C. §§ 101-03 (1970).

67. *Id.* § 101.

68. *Id.* § 102.

69. *Id.* § 103.

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.[70]

No previous statutory provision in the patent laws corresponds to this requirement,[71] even though the requirement might appear at first glance to closely resemble the "skilled mechanic" test previously enunciated by the Supreme Court in *Hotchkiss*.[72] With the requirement of nonobviousness, Congress appears to have desired a more even balance between the policy of promoting technology and the judicial disfavor of patent monopolies evidenced in the court decisions. However, the requirement of nonobviousness is itself an ambiguous term which fails to establish a clear standard for patentability. Several commentators who participated in the drafting of this act have commented on the congressional intent behind the test of nonobviousness.

Mr. P.J. Federico,[73] who was one of the chief architects of the Act of 1952, has stated that the intention of the drawers of section 103 was not to establish a radical departure in the previous level of patentability, but rather to provide statutory recognition of the need for moderation of the strict views which had been articulated in the cases by the judiciary.[74] In Mr. Federico's view, the use of the term "obviousness" in the statute for determining patentability is primarily significant because of the great variety of subjective tests which were being utilized by the courts for determining patentability—for example, "creative genius," "unusual and surprising"—which Congress could have used in the wording of section 103.[75] Congress by using the objective term "obviousness," apparently intended to adopt a moderating view to minimize the great departures by the courts following the subjective tests.[76]

Another commentator, Mr. L. James Harris,[77] who was a major

70. *Id.*

71. *See, e.g., The Standard of Patentability, supra* note 40, at 309; *Preface* to 34 J. PAT. OFF. SOC'Y 545, 554 (1952).

72. This was the view taken by the Supreme Court in Graham v. John Deere Co., 383 U.S. 1, 17 (1965) (quoted in text accompanying note 98 *infra*).

73. Mr. Federico was the Examiner-in-Chief, U.S. Patent Office.

74. Federico, *supra* note 15, at 22.

75. *Id.* at 23.

76. "This section should have a stabilizing effect and minimize great departures which have appeared in some cases." H.R. REP. No. 1923, 82 Cong., 2d Sess., at 7 (1952).

77. Formerly Committee Counsel and Counsel to the Patent, Trademark and

contributor to the final version of the act passed by Congress, also acknowledges that the revision committee was primarily concerned with the subjective nature of the tests utilized by the courts for determining patentability: "The difficulty the Committee found in including a provision on invention in the statute was in the subjective nature of the concept . . . ."[78] The framers of the act thus had attempted to express this inherently subjective concept in as objective a term as possible.[79] Mr. Harris points to another indication of the congressional intent to moderate the judiciary's subjective standards[80]—the addition of the statutory provision in the act giving a presumption of validity[81] to issued patents. Mr. Harris has stated his views as follows:

> [T]he primary purpose of the revision was to modernize and strengthen the patent laws, to give the patent right effectiveness . . . . It was the intention of the drafters to enhance the dignity of the grant in the eyes of the judiciary . . . . [82]

There is general agreement by the commentators who actively participated in the writing of the Patent Act of 1952 that the act was primarily intended to moderate the strictly subjective judicial standards of patentability.[83] Of course, these same commentators were also quick to point out that the obviousness standard in section 103 did not completely remove the subjective element in defining patentability.[84] In providing that a device must not be obvious to one of ordinary skill in the field, section 103 also was subject to subjective evaluation. However, even though subjective analysis may be required to determine what is "ordinary skill," and what would be "obvious" to a person with such skill, the ultimate determination of "obviousness" was a standard on which objective evidence could be adduced.[85]

> There is a vast difference between basing a decision on exercise of the inventive or creative faculty, or genius, ingenuity, patentable novelty, flashes, surprises and excitement, on the one hand, and basing it on unobviousness to one of ordinary skill in the art on the other.[86]

Copyright Subcommittee of the Judiciary Committee, the U.S. House of Representatives, Mr. Harris directed and supervised the actual work of the preliminary drafts and final bill.

78. Harris, *Some Aspects of the Underlying Legislative Intent of the Patent Act of 1952*, 23 GEO. WASH. L. REV. 658, 673 (1955) [hereinafter cited as Harris].

79. *Id.* at 675.

80. *Id.* at 680.

81. 35 U.S.C. § 282 (1970).

82. Harris, *supra* note 78, at 698-99.

83. *See* Rich, *The Vague Concept of "Invention" as Replaced by Section 103 of the 1952 Patent Act*, 46 J. PAT. OFF. SOC'Y 855, 865 (1964).

84. *See, e.g.*, Rich, *The Principles of Patentability*, 42 J. PAT. OFF. SOC'Y 75, 89 (1960).

85. *Id.*

86. *Id.* at 89-90.

Immediately after the passage of the 1952 Patent Act, a few decisions by the courts of appeal indicated a willingness to adopt a moderation of the previous subjective standards.[87] However, any judicial trend toward moderation was effectively terminated by the Supreme Court in *Graham v. John Deere Co.*[88]

In *Graham* the Supreme Court, in holding the patent invalid, for the first time interpreted section 103 of the new Patent Act.[89] The case involved a suit for infringement of a patent which had been issued for a chisel plow. This particular plow utilized a spring-hinge combination to absorb the shock and to push the shank of the plow upward whenever the plow struck an obstruction.[90] The question of patent infringement had been raised in two separate suits brought in the Fifth[91] and Eighth[92] Circuits. The Fifth Circuit held the patent was valid by applying its subjective test for patentability:

> [A]n improvement combination is patentable even though its constituent elements are singly revealed by the prior art, where, as here, it produces an old result in a cheaper and otherwise advantageous way . . . .[93]

In a subsequent suit, the Eighth Circuit found the identical patent invalid because "it did not bring about a significantly new or different result."[94] The Supreme Court granted certiorari in order to resolve the conflict between the two circuits, both circuits having failed to even mention section 103 in their opinion. Before discussing the validity of the patent, the Court noted that the primary issue in the case centered around the interpretation of section 103 of the Patent Act of 1952.[95] In rebutting the contention by the patent holder that section 103 had been intended by Congress to lower the standard of invention required for a patent, the Court held:

> We believe that . . . [the] legislative history, as well as other sources, shows that the revision was not intended by Congress to change the general level of patentable invention.[96]

Of course, this statement of the Court could be interpreted at face

87. *The Standard of Patentability, supra* note 40, at 313.

88. 383 U.S. 1 (1965).

89. *Id.* at 3.

90. The patent in *Graham* has been termed a marginal case, very likely to be held invalid under low standards of invention. Harris, *Section 103 Revisited*, 9 IDEA 617, 628 (1965).

91. Jeoffroy Mfg., Inc. v. Graham, 219 F.2d 511 (5th Cir. 1955).

92. John Deere Co. v. Graham, 333 F.2d 529 (8th Cir. 1964).

93. 219 F.2d at 519.

94. 333 F.2d at 534.

95. 383 U.S. at 12-13.

96. *Id.* at 17 (footnote omitted).

value as allowing a continuation of the synergistic test enunciated in *A & P*.[97] The Court continued:

> We conclude that the section was intended merely as a codification of judicial precedents embracing the *Hotchkiss* condition, with the congressional directions that inquiries into the obviousness of the subject matter sought to be patented are a prerequisite to patentability.
>
> . . .
>
> Although we conclude here that the inquiry . . . as to patentability must be beamed with greater intensity on the requirements of § 103, *it bears repeating that we find no change in the general strictness with which the overall test is to be applied.*[98]

The Court cited the prior *A & P* decision to re-emphasize the fact that the ultimate question of patent validity was a question of law, and then enumerated the criteria to be utilized in determining "obviousness" as follows:

> Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.[99]

Of course, these three criteria were merely a restatement of the subjective criteria which had been utilized by the courts prior to the enactment of section 103. For example, as has been previously discussed, the Court in *A & P* had held that the checkout counter patent was invalid because it involved nothing more than a combination of elements well known to the prior art. Had the court in *Graham* stopped writing at the point where the three step analysis for determining "obviousness" under section 103 had been enunciated, there would have been little question but that the Court did not view section 103 as a mandate to utilize more objective standards in determining patent validity. However, the Court continued with the following statement which has been the subject of continuing controversy among the authorities in patent law.[100]

> Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.[101]

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97. The court acknowledged that section 103 abolished the test of *Cuno*—"flash of creative genius." *Id.* at 15.

98. *Id.* at 17-19 (emphasis added).

99. *Id.* at 17.

100. *See, e.g.*, Dulin, *Anderson's Black Rock Inc. v. Pavement Salvage Co.: A & P Revisited or A Blessing in Disguise?* 4 JOHN MARSH. J. PRAC. & PROC. 28, 36 (1970); Editorial Note, *After Black Rock: New Tests of Patentability—The Old Tests of Invention*, 39 GEO. WASH. L. REV. 123, 142 (1970).

101. 383 U.S. at 17-18. "The focus of these inquiries is upon economic and

The inclusion of the "secondary considerations" was the Court's first pronouncement of objective criteria that could be utilized in determining patentability. The specific indices—"commercial success, long felt but unsolved needs, failure of others"—had been held to be irrelevant in the patentability analysis in *Cuno* and *A & P*. The recognition of the "secondary considerations" as being a relevant part in the patentability analysis indicated the awareness of the Court of the necessity for creating objective patentability criteria. *Graham*[102] failed, however, to set forth the emphasis which should be given by the courts to the "secondary considerations" in resolving the issue of obviousness. The inherent ambiguity in *Graham* stems from the Court's reluctance to be specific as to what point in the litigation, and under what circumstances, these "secondary considerations" were to be applied by the courts. Thus, a situation was created in which courts desiring to take a more liberal view toward patent validity were able to utilize the "secondary consierations" to uphold patent validity in spite of the Court's admonition that there was no change in the strictness with which the courts were to view patents.[103] On the other hand, courts predisposed to find the patent invalid could continue to apply the subjective tests while referring to the high standard of patentability required by *Graham*[104] and completely disregard the secondary considerations in determining obviousness.

For example, in *Continental Can Co. v. Old Dominion Box Co.*[105] a patent for wrap-around paperboard cartons was found invalid. The Court cited *A & P* as requiring a strict scrutiny of the patent and found the secondary considerations unpersuasive: "Commercial success and solution of a long-standing need in the art are secondary considerations which cannot breathe life into a patent otherwise invalid because of obviousness."[106] On the other hand, in *Preuss v. General Electric Co.*[107] a patent on an FM multiplex communication system was found valid. The Court acknowledged that *A & P* required "the whole in some way to exceed its parts" in the combination of known elements but that the commercial success and long-continued public acqui-

motivational rather than technical issues; the facts with which to resolve such issues are more amenable to judicial treatment than are the technical facts with which the courts generally struggle." Note, *Subtests of "Nonobviousness": A Nontechnical Approach to Patent Validity*, 112 U. PA. L. REV. 1169, 1172 (1964).

102. 34 GEO. WASH. L. REV. 802, 807 (1966).

103. See text accompanying note 98 *supra*.

104. Comments, *Obviousness in the Eighth Circuit*, 14 ST. LOIUS U.L.J. 672, 679 (1970). A review of courts in the Eighth Circuit indicate that a strict view toward patents has been followed since *Graham*. *Id.* at 683.

105. 393 F.2d 321 (2d Cir. 1968).

106. *Id.* at 326.

107. 269 F. Supp. 993 (E.D.N.Y. 1967).

escence in the validity of the patent were important factors to be considered in determining patentability.[108]

The Supreme Court soon clarified its position regarding patentability in *Anderson's Black Rock, Inc. v. Pavement Salvage Co.*[109]

Anderson's Black Rock, Inc. v. Pavement Salvage Co.—A Return to A & P

In *Black Rock*, while acknowledging the obviousness test of *Graham*, Justice Douglas, who had previously authored the *Cuno* "flash of genius" test, wrote the majority opinion and dispelled any doubts as to the continuing vitality of the strict tests of patentability announced in *A & P*.[110] *Black Rock* involved a patent for a standard asphalt paving machine on which a radiant-heat burner was affixed to the side. Asphalt paving is normally laid in strips, and difficulties had been encountered in maintaining the required temperature of the asphalt to 250 to 290 degrees Fahrenheit in order to assure a satisfactory bond between the previously lain strip and the subsequent contiguous strip. By attaching a heater to the paving machine, the asphalt was maintained at the desired temperature and this prevented a cold joint from developing between the contiguously laid strips.[111] Justice Douglas noted that both the heater and the paving machine were known to the prior art, and that the combination of these known elements in the paver had contributed nothing new to the art which would warrant a patent—the combination of known elements failed to satisfy the synergistic requirements established in *A & P*.[112] Justice Douglas reiterated the need for a patent to push back the frontiers of knowledge:[113] " 'Innovation, advancement, and things which add to the sum of useful knowledge are inherent requisites in a patent system . . . .' "[114]

Justice Douglas reviewed the scope of the prior art, and noted that the use of a radiant-heat burner in working asphalt had been patented in 1905. He then concluded that the mere attachment of this heater to the paver in the asserted patent did not advance the prior art—the paver and burner combination did not produce a new function but did what all pavers and burners would be expected to do. Using a

108. *Id.* at 996.

109. 396 U.S. 57 (1969).

110. See text accompanying note 98 *supra.*

111. The cold joint results in poor bonding between the two strips, creating cracks, which allows water and dirt to infiltrate causing deterioration of the asphalt.

112. 396 U.S. at 61. "[O]nly when the whole in some way exceeds the sum of its parts is the accumulation of old devices patentable." 340 U.S. at 152.

113. See text accompanying notes 58-59 *supra.*

114. 396 U.S. at 61, *quoting* Graham v. John Deere Co., 383 U.S. 1, 6 (1965).

Graham type analysis, Justice Douglas concluded: "[T]he combination was reasonably obvious to one with ordinary skill in the art."[115] In his analysis Justice Douglas completely discounted the significance of the "secondary considerations"—the most objective criteria announced by the court as indicia of obviousness in *Graham*. The court disregarded the commercial success of the paver-heater combination, the long felt need for such a paver, the prior unsuccessful efforts to solve the temperature problem, and the incredulity of experts in the field when first approached with the idea of attaching the heater to the paving machine.[116] The only conclusion that can be drawn from the *Black Rock* decision is that the Court, after viewing the finished product, utilized hindsight in reaching its conclusion that the device was merely the work of a skilled mechanic,[117] and thus failed to meet the strict standard of patentability established by the Supreme Court. With the decision in *Black Rock* the Court clearly re-established, if indeed there were any doubts, that a rigid judicial policy would be followed toward patents, and that the patent monopoly was to be granted only in exigent circumstances.

The lead of the Supreme Court was quickly followed in the lower courts. In *Woodstream Corp. v. Herter's, Inc.*[118] a patent for an animal trap was held invalid despite its proven commercial success and utility. The Humane Society had also awarded the inventor an award "because of the humane features of the trap;"[119] however, the district judge concluded: "I see no 'flash of creative genius' reflected in. . . [the] animal trap . . . ,"[120] and also expressed his general views regarding patent validity as follows: "The courtrooms . . . do not afford a congenial forum to the holder of a United States patent."[121] This statement by the district court judge is in accord with the opinion of Justice Douglas in *Black Rock* in that it enunciates the strict policy view of granting a patent monopoly only in exigent circumstances and indicates that certain of the lower courts will continue to apply a restrictive standard of patentability.

115. *Id.* at 60.

116. *See id.* at 59. "While the Fourth Circuit was persuaded by nontechnical evidence, the Supreme Court treated such 'secondary considerations' as irrelevant." Editorial Note, *After Black Rock: New Tests of Patentability—The Old Tests of Invention*, 39 GEO. WASH. L. REV. 123, 147 (1970).

117. The Supreme Court had early recognized the trap of hindsight as typified by this comment: "Now that it has succeeded, it may seem very plain to anyone that he could have done it as well. This is often the case with inventions of the greatest merit." Webster Loom Co. v. Higgins, 105 U.S. 580, 591 (1881).

118. 312 F. Supp. 369 (D. Minn. 1970), *rev'd*, 446 F.2d 1143 (8th Cir. 1971).

119. *Id.* at 371.

120. *Id.* at 373.

121. *Id.* at 370.

Patent Validity in the Ninth Circuit

Ninth Circuit decisions since *Black Rock* indicate that the rigid view of Justice Douglas toward patents has been generally followed. There have been nineteen decisions handed down dealing with patent validity, and of these, only two have held the patent valid.[122] The court generally cites the nonobvious requirements of section 103 in holding the patent invalid. However, it is readily apparent from a review of the decisions that the court places an undue reliance on the decision of the Supreme Court in *A & P*—a device which is merely a combination of old known elements, lacking the synergistic result does not warrant the granting of a patent monopoly.

The Traditional Approach Since Black Rock

In *Ashcroft v. Paper Mate Manufacturing Co.*[123] a suit for patent infringement was brought by the holder of the patent for "piggy back" pen refill units. The patented device utilized connector elements between the two cartridges which provided the rigidity necessary for projection and retraction while still allowing the cartridges to be interchanged when one refill ran out of ink. Vents in each cartridge allowed the ink to flow to the writing tip. At the outset of the opinion, the court indicated its general attitude towards patents:

> The history of the American patent system is replete with the

122. Cases involving patent validity which have been decided since October 1969 in the Ninth Circuit are as follows: Exer-Genie, Inc. v. McDonald, 453 F.2d 132 (9th Cir. 1971), *appeal docketed,* No. 71-1042, 49 U.S.L.W. 3401 (U.S. Feb. 22, 1972) (invalid); Regimbal v. Scymansky, 444 F.2d 333 (9th Cir. 1971) (invalid); Reeves Instrument Corp. v. Beckman Instruments, Inc., 444 F.2d 263 (9th Cir. 1971), *cert. denied,* 40 U.S.L.W. 3220 (U.S. Nov. 9, 1971) (valid); Bates Industries, Inc. v. Daytona Sports Co., 441 F.2d 1110 (9th Cir. 1971), *cert. denied,* 40 U.S.L.W. 3279 (U.S. Dec. 14, 1971) (invalid); Stockton Wire Products, Inc. v. K-Lath Corp., 440 F.2d 782 (9th Cir. 1971) (invalid); Ceramic Tilers Supply, Inc. v. Tile Council of America, Inc., 439 F.2d 1124 (9th Cir. 1971) (valid); Silvey v. Nielsen Corp., 437 F.2d 1159 (9th Cir. 1971) (invalid); Volvo, Inc. v. Cummings & Sander, Inc., 435 F.2d 981 (9th Cir. 1971) (invalid); Schwinn Bicycle Co. v. Goodyear Tire & Rubber Co., 444 F.2d 295 (9th Cir. 1970) (invalid); Ashcroft v. Paper Mate Mfg. Co., 434 F.2d 910 (9th Cir. 1970) (invalid); Helena Rubinstein, Inc. v. Bau, 433 F.2d 1021 (9th Cir. 1970) (invalid); Ethicon, Inc. v. Handgards, Inc., 432 F.2d 438 (9th Cir. 1970), *cert. denied,* 402 U.S. 929 (1971), *reh. denied,* 403 U.S. 912 (1971) (invalid); Bada Co. v. Montgomery Ward & Co., 426 F.2d 8 (9th Cir. 1970), *cert. denied,* 400 U.S. 916 (1970) (invalid); United Tanks, Inc. v. Sears Roebuck & Co., 425 F.2d 270 (9th Cir. 1970) (invalid); Geo. J. Meyer Mfg. Co. v. San Marino Electronic Corp., 422 F.2d 1285 (9th Cir. 1970) (invalid); Stevenson v. Diebold, Inc., 422 F.2d 1228 (9th Cir. 1970), *cert. denied,* 400 U.S. 832 (1970) (invalid); Hamlow v. Scientific Glass Apparatus Corp., 421 F.2d 173 (9th Cir. 1970) (invalid); Spring Crest Co. v. American Beauti Pleat, Inc., 421 F.2d 950 (9th Cir. 1970) (invalid); Caborundum Co. v. Wilbanks, Inc., 420 F.2d 43 (9th Cir. 1969) (invalid).

123. 434 F.2d 910 (9th Cir. 1970).

> continuing tension between a strong public policy against monopoly and a desire to encourage inventions which will benefit the public. This tension has been resolved by the courts setting a high and exacting standard for patent validity.[124]

The patentee claimed that the prior art failed to reveal a tight fit between the tandem cartridges, but the significance of the connector element and vents in this patent which allowed a tight fit between the tandem instruments was summarily discounted by the court.[125] The court noted that it had in a prior case[126] summarized the principles of *A & P*—only when the whole in some way exceeds the sum is a combination of known elements patentable—and then emphasized that adherence to these teachings of the Supreme Court was required.[127] The court concluded that the patent was merely an improvement over several other patented tandem writing instruments and stated: "Both elements are within a pen barrel and they 'are *simply* shoved one inside the other.' "[128] The fact that this device utilized a connector in a new way which was a crucial improvement over the prior art was summarily discounted by the court.

In *Regimbal v. Scymansky*[129] a patent for a hop-picking machine was held invalid even though the court had specifically found that the machine was both novel and useful.[130] The court held that the patent failed to satisfy the "unusual or surprising" test of *A & P*.[131] The court further explained that strict standards are applied to determine patentability because "the courts have been sensitive to the fact that issuance of a patent . . . [may] grant a monopoly for seventeen years on ideas . . . that were previously a part of the public domain."[132] In *Regimbal*, the court held that in an assessment of the patentability of combination patents, a special standard must be incorporated. Quoting Judge Duniway,[133] the court found the special standard to be derived from *A & P*:

> In assessing the patentability of combination patents, we are to apply a 'severe test,' whether 'the whole in some way exceeds the sum of its parts' to produce '*unusual or surprising consequences*' from the unification of the elements . . . .[134]

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124. *Id.* at 912.
125. *Id.* at 914.
126. Jeddeloh Bros. Sweed Mills, Inc. v. Coe Mfg. Co., 375 F.2d 85, 87-88 (9th Cir. 1967).
127. 434 F.2d at 912.
128. *Id.* at 914.
129. 444 F.2d 333 (9th Cir. 1971).
130. *Id.* at 336.
131. *Id.* at 340.
132. *Id.*
133. Bentley v. Sunset House District Corp., 359 F.2d 140, 144 (9th Cir. 1966).
134. 444 F.2d at 339.

Even though the court has specifically expressed this rigid policy towards patent monopolies in only three cases,[135] the high percentage of cases in which patents are found invalid creates a reasonable inference that the Ninth Circuit is following the Supreme Court's policy lead—the monopolistic aspects of a patent represent a detriment to society which overrides any possible benefit which might be derived by society in terms of promoting technology.[136]

In many of the patent infringement cases in the Ninth Circuit, the court initially characterizies the patented device as a so-called "combination patent"—a combination of old known elements in the prior art—which immediately brands the patent as suspect.[137] The court relies a great deal on the following language from *A & P*:

> Courts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements.[138]

The courts' initial finding that the patent merely involves a combination of old elements, known in the prior art, largely preordains the ultimate finding by the court of patent invalidity. If the language of *A & P* regarding the "difficulty and improbability" of finding patentability in a combination of known elements is taken literally, there will be few, if indeed any, devices which can stand the test. In other words, the fact that the device may represent the first time these particular elements were combined to achieve a desired result is deemed unimportant; and unless the combination yields a synergistic result, the court will refuse to uphold the patent. The fact that the "synergistic" test is applied by the court subjectively, *after the combination has taken place*, has been criticized by the commentators.[139] Further, if the device is reduced to its lowest components—ball bearings, screws, etc.—

135. Regimbal v. Scymansky, 444 F.2d 333 (9th Cir. 1971); Ashcroft v. Paper Mate Mfg. Co., 434 F.2d 910 (9th Cir. 1970); Spring Crest Co. v. American Beauti Pleat, Inc., 420 F.2d 950, 952 (9th Cir. 1969) ("This demonstration of simple mechanical skill does not warrant monopolistic protection.").

136. See Michel, *Was the U.S. Patent System Planned for Supermen? A Comparison with Copyright Protection*, 32 J. PAT. OFF. SOC'Y 375, 377 (1950). "At the present time, the majority of the bench apparently are convinced that patents are bad for the common welfare. . . ."

137. "We are enjoined to scrutinize such patents (combination) 'with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements'." Bada Co. v. Montgomery Ward & Co., 426 F.2d 8, 10 (9th Cir. 1970); "[T]his court has recognized that 'the concept of invention is inherently elusive when applied to a combination of old elements' . . . ." Stevenson v. Diebold, Inc., 422 F.2d 1228, 1229 (9th Cir. 1970).

138. 340 U.S. at 152.

139. "Courts . . . unlike scientists and engineers working at the bench, would expect more than the small increments of improvement that make up progress in the useful arts." Harris, *supra* note 90, at 626. See text accompanying note 117 *supra*.

the "synergistic" test will preclude the patentability of any device. The Ninth Circuit has traditionally applied the *A & P* rationale in patent infringement suits, and as previously discussed, has ruled the patent invalid in 90 percent of the cases brought before it.

In *Volvo, Inc. v. Cummings & Sanders, Inc.*[140] the suit for patent infringement involved a patent which utilized a new device for fastening shoulder and lap safety belts in automobiles. There were several other types of shoulder and lap belts in the field; however, this particular belt was the only one which provided a common point of intersection for the shoulder and lap elements, and allowed the belts to be fastened at the same time—other belts in the field required independent fastening of the shoulder belt and the lap belt. The court found that both the fastener and the type of belt utilized in the patent were known in the prior art, and the patent was held invalid because it failed to "satisfy the stringent rule for patentability for devices that aggregate elements known to the prior art."[141]

As previously discussed,[142] the Supreme Court early recognized that possible errors could be occasioned if the courts followed hindsight analysis for determining patent validity. Thus, the Court in *Graham* had suggested certain "secondary considerations"[143] as useful indicia for determining patentability. These secondary considerations—commercial success, long felt need, prior unsuccessful attempts to solve the problem, etc.—are particularly pertinent for the so-called "combination patent" because they offer objective criteria for the court's analysis.[144] Of course, Justice Douglas in *Black Rock* relegated the "secondary considerations" to truly secondary status: "It is . . . fervently argued that the combination filled a long felt want and has enjoyed commercial success." But those matters " 'will not make patentability.' "[145] Any viability that *Graham* may have given to the "secondary considerations" as objective indicia of patentability were thus eroded by the *Black Rock* decision. The Ninth Circuit has generally followed the lead of Justice Douglas in relegating the "secondary considerations" to truly secondary status insofar as patentability is concerned.

In *Bada Co. v. Montgomery Ward & Co.*[146] the patent had been

140. 435 F.2d 981 (9th Cir. 1971).

141. *Id.* at 982, *citing* Great Atlantic & Pacific Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147 (1950).

142. See note 139 *supra.*

143. See text accompanying note 101 *supra.*

144. 34 GEO. WASH. L. REV. 802, 806 (1966).

145. 396 U.S. at 61, *quoting* Great Atlantic & Pacific Tea Co. v. Supermarket Equip. Co., 340 U.S. 147, 153 (1950). The Court does not mention *Graham.*

146. 426 F.2d 8 (9th Cir. 1970).

issued by the Patent Office for a device which used a four step method of balancing automobile tires. The court found the patented device simple and easy to apply, and also noted that it was undisputed that the patented device solved what had been a continuing problem in the industry and that it had enjoyed significant commercial success.[147] However, the court stated: "To be sure, the combination here filled a long-felt need and enjoyed commercial success. But that is not enough to show patentability."[148]

In *Carborundum Co. v. Wilbanks, Inc.*,[149] the patentee had discovered that a "hard ceramic" suction box would reduce wire wear in the Fourdrinier papermaking process. The high cost of wire replacement and lost production caused by shutdowns to replace the wire were "accepted as one of the realities of using the Fourdrinier process,"[150] and most paper producers used this particular process in their plants. The court, in finding the patent invalid, minimized the significance of "secondary considerations" in its analysis: "[E]vidence that the device was commercially successful and met a long felt but unsolved need was correctly categorized as 'secondary' under *John Deere* . . . ."[151]

In summary, the Ninth Circuit's traditional approach in patent infringement suits has been to slavishly follow the dicta in *A & P* regarding "combination patents" with suspicion, and to relegate the objective "secondary considerations" to secondary status.[152]

A judicial policy of granting a patent monopoly only in exigent circumstances, the need for a stringent analysis of combination patents, and a reluctance to consider the "secondary considerations" as indicia of patentability is constantly expressed or implied in the Ninth Circuit decisions. The court, however, appears to have either relaxed or reversed certain of its traditional approaches in the recent case of *Reeves Instrument Corp. v. Beckman Instruments Inc.*[153]

147. *Id.* at 10.

148. *Id.*

149. 420 F.2d 43 (9th Cir. 1969).

150. *Id.* at 46.

151. *Id.* at 50-51.

152. One commentator suggests that giving these considerations secondary status occurs when the judge uses subjective hindsight in determining patentability. Gausewitz, *Brief in Support of Proposed Amendment to Section 103, Title 35, Patents, U.S. Code,* 51 J. PAT. OFF. SOC'Y 290, 323 (1969). Other decisions in the Ninth Circuit treat secondary considerations negatively. *See, e.g.,* Schwinn Bicycle Co. v. Goodyear Tire & Rubber Co., 444 F.2d 295, 300 (9th Cir. 1971) (issuance of licenses to competitors to use patent and commercial success rejected); Stevenson v. Diebold, Inc., 422 F.2d 1228, 1232-33 (9th Cir. 1970) (testimony of an expert that he would have doubted that the patent would work and commercial success rejected).

153. 444 F.2d 263 (9th Cir. 1971), *cert. denied,* 40 U.S.L.W. 3220 (Nov. 9, 1971).

Reeves Instrument Corp. v. Beckman Instruments, Inc.—A New Approach

The patent in *Reeves* was for a device which utilized a static and a dynamic operational check of analog computers. The patent was composed of a combination of older elements—amplifiers, potentiometers, switches, and other common electronic parts—which had been extensively used throughout the computer field. The *Reeves* patent had the advantage of checking the voltage at the input to the integrating circuit which prior check methods had lacked. However, the patent contained no claim of new components, and rather consisted merely of a new combination of prior known elements.

The court, after a somewhat lengthy technical discussion of the operational nature of the patented checking device, turned its attention to the issue of patentability. The court referred briefly to the criteria enunciated in the Patent Act of 1952—new, useful, and nonobvious—and summarily concluded that the device was both new and useful. Next, the court met the contention that because the device was merely composed of old known elements, it lacked patentability under the standard of *A & P*:

> This argument fails on two grounds. First, it misconstrues the import of the *A & P* decision. Second, it suggests an analytical approach to patentability which is directly contrary to the statutory language of 35 U.S.C. § 103 which provides that the inquiry into patentability must be drawn toward the "subject matter as a whole" and not to the elements of a claimed combination and their individual novelty.
>
> . . . Carried to its logical conclusion, the argument here would result in a rule to the effect that *A & P* precludes the patenting of virtually every new mechanical or electrical device since the vast majority, if not all, involve the construction of some new device (or machine or combination) from old elements.[154]

Of course, the criticisms[155] which have been leveled at the rigidity of the courts in applying subjective after the fact analysis to "combinations of known elements" closely approximate the above language of the court. With hardly a change of pace, the court acknowledged its prior reliance on *A & P*,[156] and *Black Rock*,[157] and blandly noted:

> [P]rior art methods of accomplishing the claimed static check failed to check at the input to the integrator. The claims in issue here all require checking at the integrator input.[158]

In other words, the court shifted its emphasis from the composition of the "combination patent," and instead relied on the *result* achieved by

154. *Id.* at 270.
155. See text accompanying notes 63 & 75-86 *supra.*
156. 444 F.2d at 271.
157. *Id.*
158. *Id.*

the new combination. This shift in emphasis is all important, and represents a significant departure from the prior cases[159] in which the court had held that though the new device attained a desired result, the device represented merely a "combination of known elements" and thus lacked patentability.

In another significant swing away from its prior decisions, the Ninth Circuit in *Reeves* for the first time in a patent infringement suit placed emphasis on the "secondary considerations." The court acknowledged the difficulty in evaluating the level of skill involved in any patent:

> In this respect, the Supreme Court has noted that 'such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.[160]

The complexity of the problem involved in developing a suitable computer checking device, the fact that the Air Force had chosen the Reeves patent for a computer facility which was larger than any previously built, and the fact that fifteen different approaches had been previously attempted to solve the problem—including research at the Massachusetts Institute of Technology—were deemed persuasive by the court as indicia of patentability[161] and the patent was therefore held to be valid.[162]

To briefly summarize then, the court in *Reeves* appears to have done a complete about face regarding the emphasis to be accorded the composition of the "combination patent," and instead relied for the first time on the *results* obtained by the new combination in determining patentability. Further, the court's reliance on "secondary considerations" in its analysis of patentability represents a significant departure from prior decisions in the Ninth Circuit.

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159. "When hoary devices like spring and cams are involved, it will be a rare case indeed when mere artful placement of them will be non-obvious." Bada Co. v. Montgomery Ward & Co., 426 F.2d 8, 11 (9th Cir. 1970) (emphasis added); "In no field has the doctrine of 'strictness' been so manifest as that of combinations of old (known) elements." Gausewitz, *supra* note 152, at 304. See text accompanying notes 135-37 *supra*.

160. 444 F.2d at 271-72.

161. "Substantial efforts by others in the art which fail to accomplish the result achieved by the patented invention are persuasive indications of non-obviousness." *Id.* at 272. *See also* 34 GEO. WASH. L. REV. 802, 807 (1966). The subtests of *Graham* would be of particular value where elements are known.

162. The only other Ninth Circuit decision finding a patent valid was in Ceramic Tilers Supply Inc. v. Tile Council of America, Inc., 439 F.2d 1124 (9th Cir. 1971), where the court affirmed the district court's finding of patent validity. The case was remanded twice before a final decision was reached and offers little guidance on patentability in the Ninth Circuit.

Whether the court in *Reeves* was attempting to establish a more liberal policy regarding patent validity—favoring the promotion of technology in spite of the monopolistic aspects of patents—may be a short lived inquiry. In a more recent case, *Exer-Genie, Inc. v. McDonald*[163] the Ninth Circuit may have regressed to its prior strict interpretations of patentability. The patent involved an exercising device which operated on a friction-resistance principle. The patentee acknowledged that the idea for the exercise device had been derived from an old patented fire escape device which had been in general use for about 85 years. The court pointed out that upholding the validity of the patent in this case would provide a patent monopoly without any corresponding social benefit, and thus concluded that "the old device put to a new use is not again patentable merely because the new use was unanticipated."[164] The court noted that both the function and structure of the old patented fire escape devices were the same as in the litigated patent, and were therefore within the realm of public knowledge for which a patent should not be issued.[165] The language used by the court does not, however, indicate that the invalidity of the patent was based on the fact that it was composed of known elements, an analysis which was generally followed by the Ninth Circuit prior to *Reeves*. Instead, the court stated that a combination of old elements producing a new *result* may be patentable: "While a new combination of old elements may be patentable if it produces unexpected results, plaintiff's exerciser is not a new combination, but an old and well known one."[166] The court disregarded "secondary considerations" in its analysis—the alleged patent's commercial success; the long felt but unfulfilled need for portable exercise equipment; and the fact that the device had been copied by others, as persuasive indicators of patentability. However, the fact that the court found that the structure and function of the device was already disclosed in prior patents,[167] indicates that the court would not necessarily have been required to consider these "secondary considerations" in this case: "It is well settled that mere application of an old device to a new use does not constitute [patentable] invention."[168] However, the court appears to have qualified this language by stating that under certain circumstances a new use for an old device might still be patented:

163. 453 F.2d 132 (9th Cir. 1971), *appeal docketed*, 40 U.S.L.W. 3401 (U.S. Feb. 22, 1972).

164. *Id.* at 134.

165. *Id.*; *see* Anderson's-Black Rock, Inc. v. Pavement Salvage Co., 396 U.S. 57, 61 (1969), where the Court stated: "Moreover, Congress may not authorize the issuance of patents whose effects are to remove existent knowledge from the public domain. . . ."

166. 453 F.2d at 135.

167. *Id.* at 134.

168. *Id.* at 133.

> This [referring to the above quotation] and similar statements quoted throughout this opinion are subject to the caveat that a *new use of an old machine may be patented as a process.* What is not patentable is the old machine itself. . . . Thus, a "process" may be patented (35 U.S.C. § 101), and "process" is defined to include "a new use of a known . . . machine" (35 U.S.C. § 100(b)).[169]

Whether the decision in *Exer-Genie* implies a regression to the Ninth Circuit's prior strict interpretation of patentability may be open to question;[170] however, it would appear significant that the alleged patent may not have provided the necessary question of patentability that would require a *Reeves* type analysis—a combination of old known elements to form *a new device* that produced a new result. In *Exer-Genie* there was no combination of elements, but merely a new use of an old device.

Summary

The concept of patentability has trod a path strewn with many tests since the first Patent Act in 1790. These tests, both statutory and judicially evolved, have generally been developed against a background of conflicting policies—the promotion of technology versus the granting of a monpoly. The desire to promote technology appears to have had the most persusaive force in Congress and the judiciary during the early history of the country. This intent was expressed in the Patent Act of 1790—all that was required was that the invention be new and useful for patentability. Subsequent Patent Acts have also continued to require these two elements. Against this background, a series of judicially evolved tests for patentability were evolved.

The basic problem with the judicial tests was their inherently subjective quality which often allowed a judge to apply his own policy views on the issue of patentability. The significance of this judicial freedom was that the courts, beginning with *Hotchkiss* in 1850, indicated that the monopolistic characteristics of patents was an evil which should only rarely be allowed to flourish, and this policy judgment was given a persuasive position in the courts' analysis. This judicial policy represented a change from the earlier more liberal policy; however, the change is not surprising since it closely parallels the rising tide of public discontent with the abuses of monpolistic business practices. In any event, the courts gradually evolved and applied what are generally considered as more restrictive tests of patentability.

169. *Id.* at 133 n.1 (emphasis supplied).

170. Judge Ely, in dissent, would have found the patent valid based on the presumption of patent validity and the "secondary considerations of commercial success and the copying of the patented device by competitors." *Id.* at 136-37.

The increasing severity with which the courts viewed patentability culminated in the "flash of genius" test enunciated in *Cuno*. Under this decision a creation required special ingenuity—a flash of genius—before it was patentable. Many courts and commentators viewed *Cuno* as a mandate from the Supreme Court to apply a higher standard for patentability. Shortly thereafter, the Supreme Court in *A & P* announced the synergistic test for patentability—the device, as a unit, must do more than the sum of its parts. The policy view of the Court was expressed by Justice Douglas when he noted that the patent was a monopoly, and monopolies were not to be freely granted unless a synergistic result is obtained—two plus two equalling five. This case by case shift toward a restrictive view of patentability was also accompanied by an increasing subjectivity on the part of the courts in the tests which were applied. Inconsistencies in the decisions of the various courts which used these subjective standards were inevitable, and created a desire to establish a more objective standard, and were generally considered to be the motivating force behind Congress' enactment of the Patent Act of 1952.

The Patent Act of 1952 incorporated the first additional statutory requirement for patentability since the Patent Act of 1790—nonobviousness. The nonobviousness test, which appears to closely resemble the "skilled mechanic" test in *Hotchkiss*, is generally considered as an expression by Congress to strike a more even balance between the restrictive and liberal patent policy views. Most commentators viewed the act as an expression for a more adequate and objective view toward patents. Subsequent Supreme Court cases indicated that the judiciary view toward patentability was not to be moderated by this act. The first case to interpret the nonobviousness test of the Patent Act of 1952 was *Graham*. The Court specifically stated that the act was only a codification of judicial precent (*Hotchkiss* and *A & P*) and that prior tests of patentability were to be strictly applied. While outlining the procedures to be applied under section 103, the *Graham* Court introduced the first objective criteria that could be utilized in determining patentability—secondary considerations such as commercial success, long felt need, etc. The significance of these "secondary considerations" was never clarified by the *Graham* decision, though it is generally agreed that their application would provide needed objectivity to a court's analysis of patentability.

Any doubts as to whether the Court had adopted a more liberal standard of patentability were dispelled in *Black Rock*. The Court applied the synergistic tests of *A & P* and minimized the significance of the secondary considerations in finding the patent invalid. The monopoly created by the patent was considered to outweigh the original constitutional desire to promote technology.

Recent Ninth Circuit decisions indicate that the restrictive view toward patents expressed in *Black Rock* has been followed. The Ninth Circuit has consistently expressed or implied that the granting of a patent monopoly was to be tolerated only in exigent circumstances. Accordingly, the court continued to apply the subjective tests enunciated in *Cuno, A & P,* or *Black Rock* and refused to consider any of the secondary considerations of *Graham* in determining patentability.

The court's consistent application of a restrictive view on patents was *abandoned* in *Reeves.* The *Reeves* decision indicates that the Ninth Circuit has, at least temporarily, swung away from its prior strict view regarding patents. Whether this is a beginning of a trend remains to be answered by subsequent decisions. If *Reeves* is not the beginning of a trend towards a more objective evaluation of patentability, Justice Jackson's warning will continue to haunt the patentee: "[T]he only patent that is valid is one which the court has not been able to get its hands on."[171]

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171. Jungersen v. Ostby & Barton Co., 335 U.S. 560, 572 (1949) (Jackson, J., dissenting).

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